

FIG. 1

09608976.063000

14

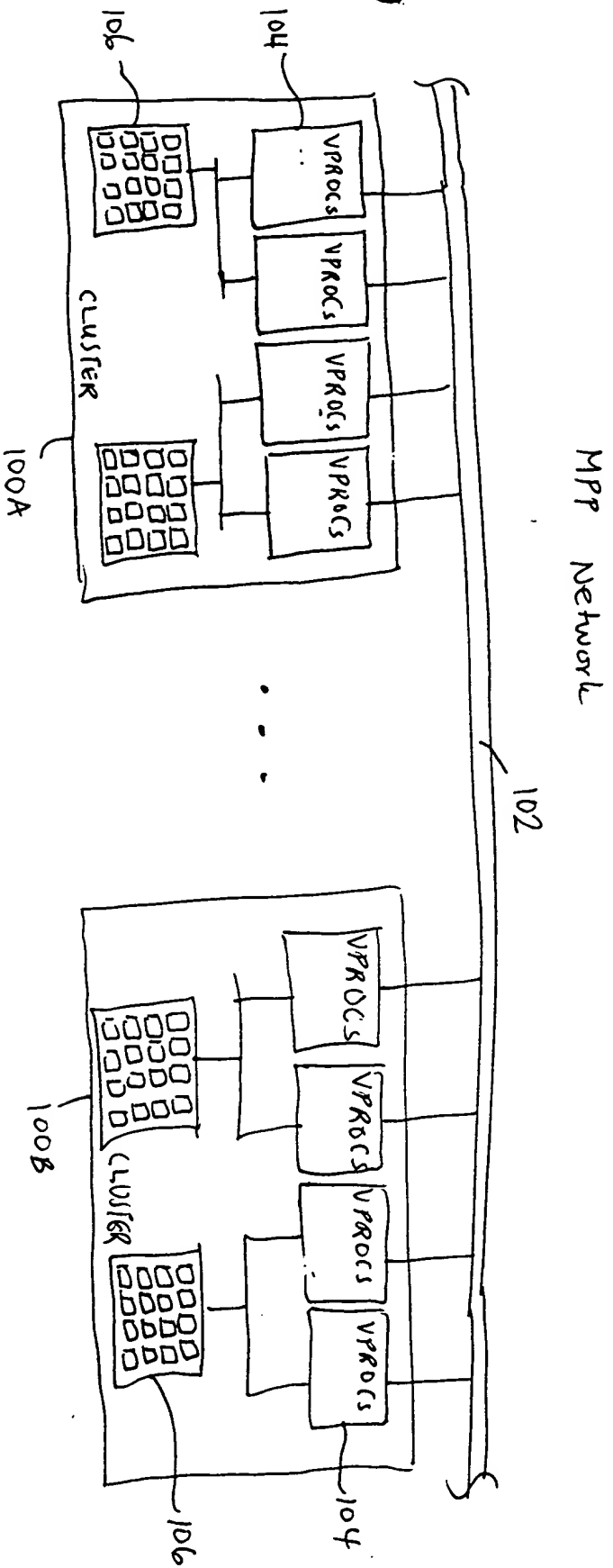
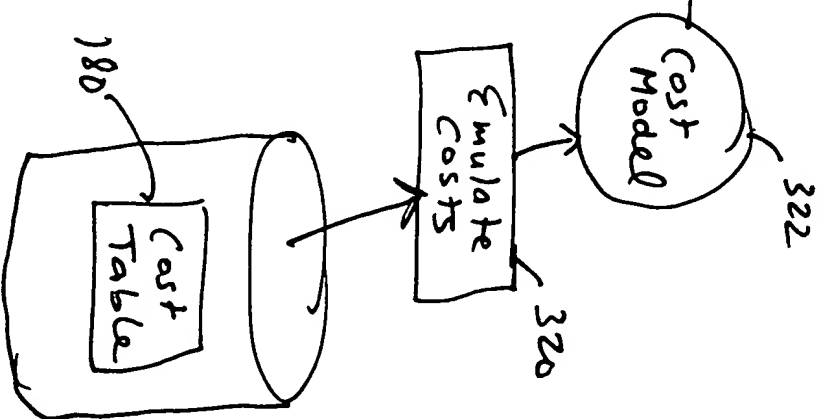
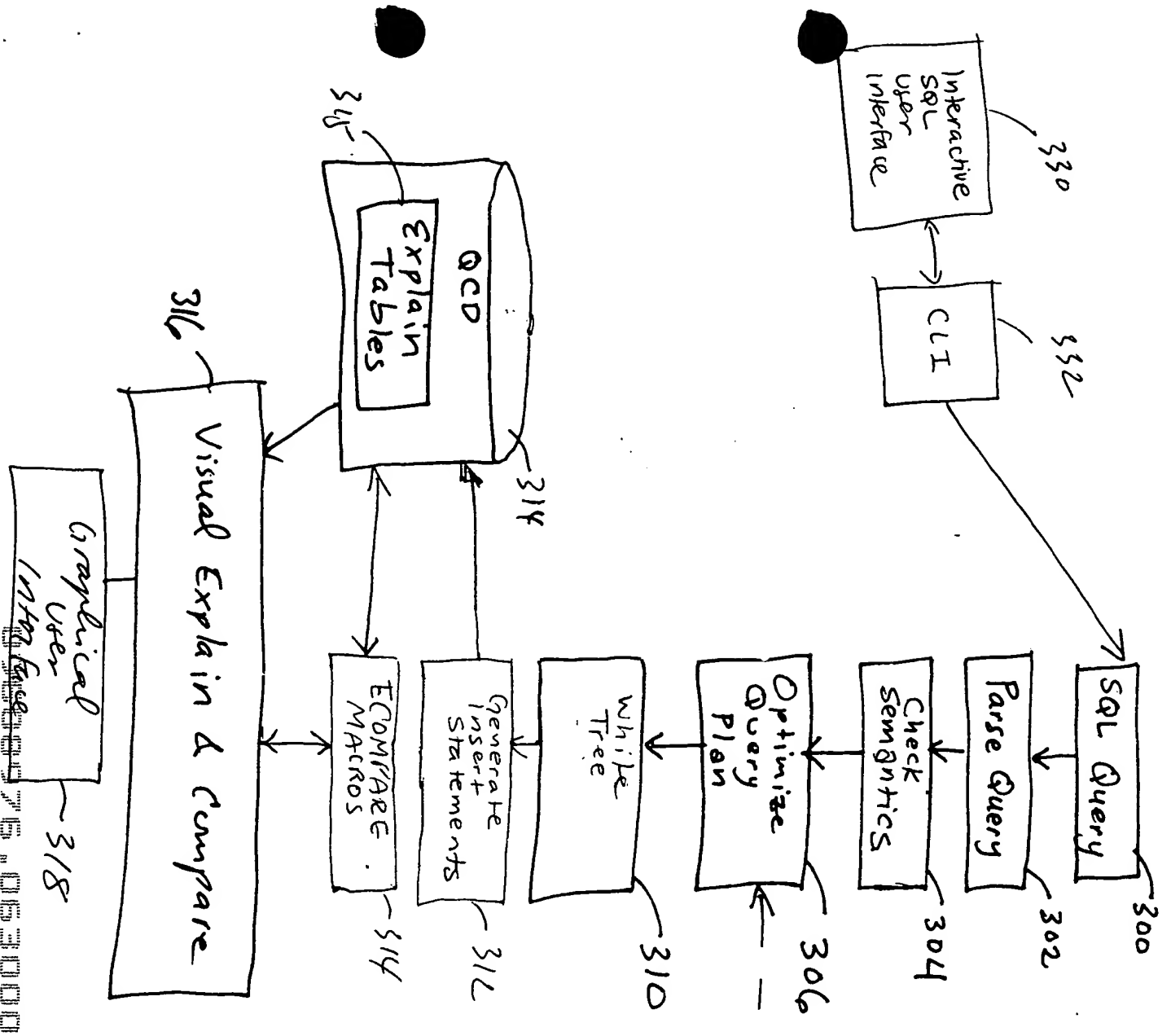


FIG. 2

09608976, 063000



F16. 3

Logon to Teradata RDBMS

Please enter your logon information

RDBMS Name [3634] 404

User Name [dbc] 406

Password [] 402

Database Name [qcd] 408

OK

Cancel

Fig. 4

05608976.063000

400

Open Plan

Selection

412



QueryId Range

Previous

Next

OK

Cancel

Query Count

Query Text

Query Information

416

Query Id	Source	Query Text
1 13634		SELECT S.ACCTBAL, S.NAME, N.NAME, P.P, P.P, P.P
2 13634		SELECT S.ACCTBAL, S.NAME, N.NAME, P.P, P.P
3 13634		SELECT S.ACCTBAL, S.NAME, N.NAME, P.P, P.P
4 13634		SELECT S.ACCTBAL, S.NAME, N.NAME, P.P, P.P

Complete Query Text

SELECT S.ACCTBAL, S.NAME, N.NAME, P.P, P.P, P.P
P.MFGR, S.ADDRESS,
S_PHONE, S.COMMENT FROM PARTTBL, SUPPLIER,
PARTSUPP, NATION
REGION WHERE P_PARTKEY = PS_PARTKEY AND
S_SUPKEY = PS_SUPKEY

Load Plan

410

418

Loading all queries...

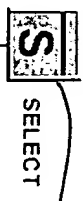
logged on 13634 qcd

F16.5

09608976.063000

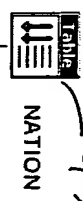
Lock Steps: 1 to 6

432



SELECT

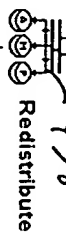
Step 7



NATION

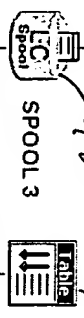


All AMP Retrieve
Cost 00:00:00.03



Redistribute

Step 8



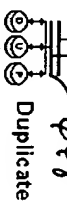
SPPOOL 3

Estimate size 20 rows



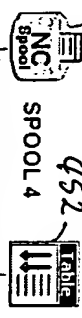
Merge

Cost 00:00:00.19



Duplicate

Step 9.1



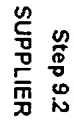
SPPOOL 4

Estimate size 40 rows



Product

Cost 00:00:02.32



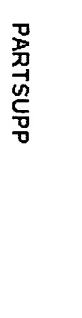
SUPPLIER

Estimate size 40 rows



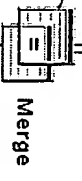
PARTTBL

Estimate size 40 rows



PARTSUPP

Estimate size 40 rows



Merge

Cost 00:02:44.06

430

444

440

446

454

456

450

458

FIG. 6
09603975 063000

502

Lock Steps: 1 to 6

SELECT

Step 7

NATION

All AMP Retrieve
Cost 00:00:00.03

Redistribute

Step 8

SPOOL 3
REGION

Estimate size 20 rows

Merge

Cost 00:00:00.19

Duplicate

Step 9.1

SPOOL 4
Estimate size 40 rows

Product

Cost 00:00:02.32

Step 9.2

SUPPLIER
PARTTBL
PARTSUPP

Merge

Cost 00:02:44.06

Save

Save Options

☒ Visual Plan

☐ Explain Text

☐ Query Text

☐ Tool Tips

OK

Cancel

500

Fig. 7

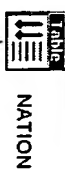
Lock Steps: 1 to 6

432

510

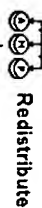
IconDescription
Detail Information

Step 7



NATION

All AMP Retrieve
Cost 00:00:00.03



Redistribute

Step 8

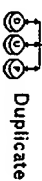


SPOOL 3

Estimate size 20 rows

REGION

Merge
Cost 00:00:00.19



Duplicate

Step 9.1



SPOOL 4

Estimate size 40 rows

SUPPLIER

Product
Cost 00:00:02.32

Step 9.2



PARTBL



PARTSUPP

Merge
Cost 00:02:44.06

Displaying Loop Information

Logged on 13634 qcd

FIG. 8

09608976 063000

Lock Steps: 1 to 6

432 SELECT

Step 7 NATION

All AMP Retrieve
Cost 00:00:00.03

Redistribute

Step 8 SPOOL 3
Estimate size 20 r

Merge
Cost 00:00:00.19

Duplicate

Step 8.1

SPOOL 4
Estimate size 40 rows

Product
Cost 00:00:02.32

Step 9.2 SUPPLIER

PARTTBL PARTSUPP

Merge
Cost 00:02:44.06

Detail Information

Statement Information

```
SELECT S.ACCTBAL, S.NAME, N.NAME, P.PARTKEY, P.MFGR, S.AD-
S_PHONE, S.COMMENT FROM PARTTBL, SUPPLIER, PARTSUPP, NATI
WHERE P.PARTKEY = PS.PARTKEY AND S.SUPPKEY = PS.SUPPKEY
15 AND P.TYPE LIKE '%BRASS' AND S.NATIONKEY = N.NATIONKE
N.REGIONKEY = R.REGIONKEY AND R.NAME = 'EUROPE' AND PS_S
(SELECT MIN(PS.SUPPLYCOST) FROM PARTSUPP, SUPPLIER, NATI
WHERE P.PARTKEY = PS.PARTKEY AND S.SUPPKEY = PS.SUPPKEY
S.NATIONKEY = N.NATIONKEY AND N.REGIONKEY = R.REGIONKEY
'EUROPE') ORDER BY S.ACCTBAL DESC, N.NAME, S.NAME, P.PAR
```

OK

Displaying Query 1

Logged on 13634 qcd

F16, 9

09060975.063000

Lock Steps: 1 to 6

SELECT

NATION

All AMP Retrieve
Cost 00:00:00.03

Redistribute

Step 8
446
SPOOL 3
REGION
Spool Name:
Confidence level: Low Confidence
Sorted Information: Yes
Cached Information: Yes
Size Estimate: 20 Rows

Cost 00:00:00.19

Duplicate

Step 9.1

SPPOOL 4
Estimate size 40 rows

Product
Cost 00:00:02.32

Step 9.2
SUPPLIER

PARTTBL

PARTSUPP

Merge
Cost 00:02:44.06

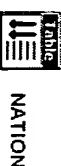
Display/Log Tooltip Information

Logged on 13634 qcd

FIG. 11

09603976.063000

Lock Steps: 1 to 6



NATION

Step 7

All AMP Retrieve
 Operation Performed: Retrieve
 Group Amp Information: All AMP
 Cost: 00:00:00.03
 Maximum Cost: 00:00:00.03
 Residual condition:
 Residual fields:

530



SPPOOL 3

REGION

Step 8

Estimate size 20 rows



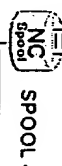
Merge

Cost 00:00:00.19



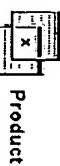
Duplicate

Step 8.1



SPPOOL 4

Estimate size 40 rows



Product

Cost 00:00:02.32

SUPPLIER

PARTTBL

PARTSUPP

Step 9.2



Merge

Cost 00:02:44.06

Displaying ToolTip information

Logged on 13634.qcd

F15. 10

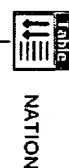
09608976.063000

Lock Steps: 1 to 6



SELECT

Step 7



NATION

All AMP Retrieve
Cost 00:00:00.03

Redistribute

Step 8



SPPOOL 3



REGION

Estimate size 20 row

Table Name: REGION

Eligible for synchronize scanning

Type of Table: Permanent

Property: Table is not cached

Index field name: Is not ordered by

without range constraint

does not have unique index value

is not a index join field

Duplicate

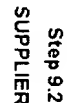
446 Merge
Cost 00:00:00.19

Step 9.1

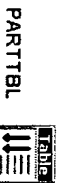


SPPOOL 4

Estimate size 40 rows



SUPPLIER



PARTBL



PARTSUPP

Product
Cost 00:00:02.32

Merge
Cost 00:02:44.06

Displaying Job Information

Logged on 13634 qcd

FIG. 12

09503975.063000

Lock Steps: 1 to 6



SELECT

Step 7



NATION



All AMP Retrieve
Cost 00:00:00.03



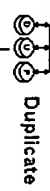
Redistribute

Step 8



Table

8) We do an all-AMPs JOIN step from TPCD10G.REGION by way of a RowHash match scan with a condition of ("TPCD10G.REGION.R_NAME = 'EUROPE'"), which is joined to Spool 3 (Last Use). TPCD10G.REGION and Spool 3 are joined using a merge join, with a join condition of ("N_REGIONKEY = TPCD10G.REGION.R_REGIONKEY"). The result goes into Spool 4, which is duplicated on all AMPs. The size of Spool 4 is estimated with no seconds



Duplicate

Step 9.1



SPPOOL 4
Estimate size 40 rows



Product
Cost 00:00:02.32

Step 9.2



SUPPLIER



PARTTBL



PARTSUPP



Merge
Cost 00:02:44.06

Display SQL and Information

Logged on 13634 qcd

560

FIG. 13

09608976.063000

570

All AMP Retrieve
Cost 00:00:00.03

Redistribute

Step 8
SPool 3
Estimate size 20 rows
REGION

Merge
Cost 00:00:00.19

Duplicate

Step 9.1
SPool 4
Estimate size 40 rows
Product
Cost 00:00:02.32

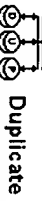
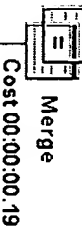
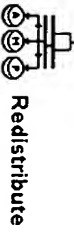
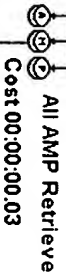
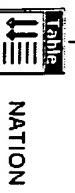
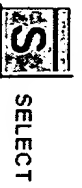
Step 9.2
SUPPLIER
PARTTBL
PARTSUPP

Merge
Cost 00:02:44.06

FIG. 14

09508976.063000

Lock Steps: 1 to 6



- 1) First, we lock a distinct "pseudo table" to prevent global deadlock for NATION.
- 2) Next, we lock a distinct "pseudo table" to prevent global deadlock for REGION.
- 3) We lock a distinct "pseudo table" to prevent global deadlock for SUPPLIER.
- 4) We lock a distinct "pseudo table" to prevent global deadlock for PARTBL.
- 5) We lock

Insert Clipboard contents

Paste

Logged on 13634.qcd

430

540

F-16. 16

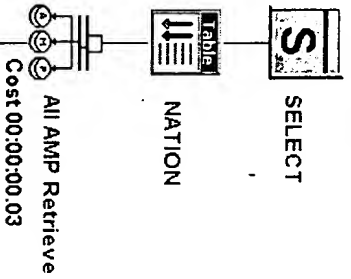
090608976.063000

Lock Steps: 1 to 6

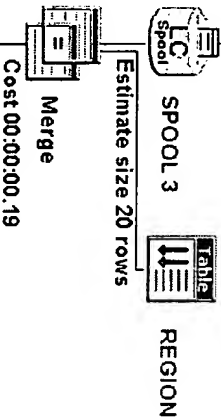
1) First, we lock a distinct "pseudo table"
 prevent global deadlock for NATION.
 2) Next, we lock a distinct "pseudo table"
 prevent global deadlock for REGION.
 3) We lock distinct "pseudo table"
 prevent global deadlock for SUPPLIER.
 4) We lock a distinct "pseudo table"
 prevent global deadlock for PARTBL.
 5) We lock a distinct "pseudo table"
 prevent global deadlock for PARTSUPP.
 6) We lock NATION for read, we lock REGION for read, we lock SUPPLIER for read, we lock PARTBL for read, and we lock PARTSUPP for read.
 We do all-AMPs RETRIEVE step from NATION by way of an scan into Spool 3, which is redistributed by hash code to all AMPs. Then we do a SORT to order Spool 3 by row hash. The size of Spool 3 is estimated with low confidence to be 20 rows. The estimated time for this

430

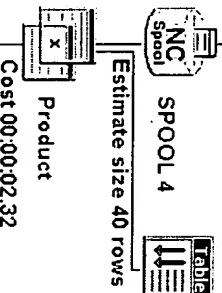
Step 7



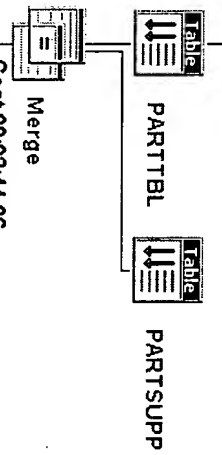
Step 8



Step 9.1



Step 9.2



580

ELG 15 0908975 063000

600

Fig. 17

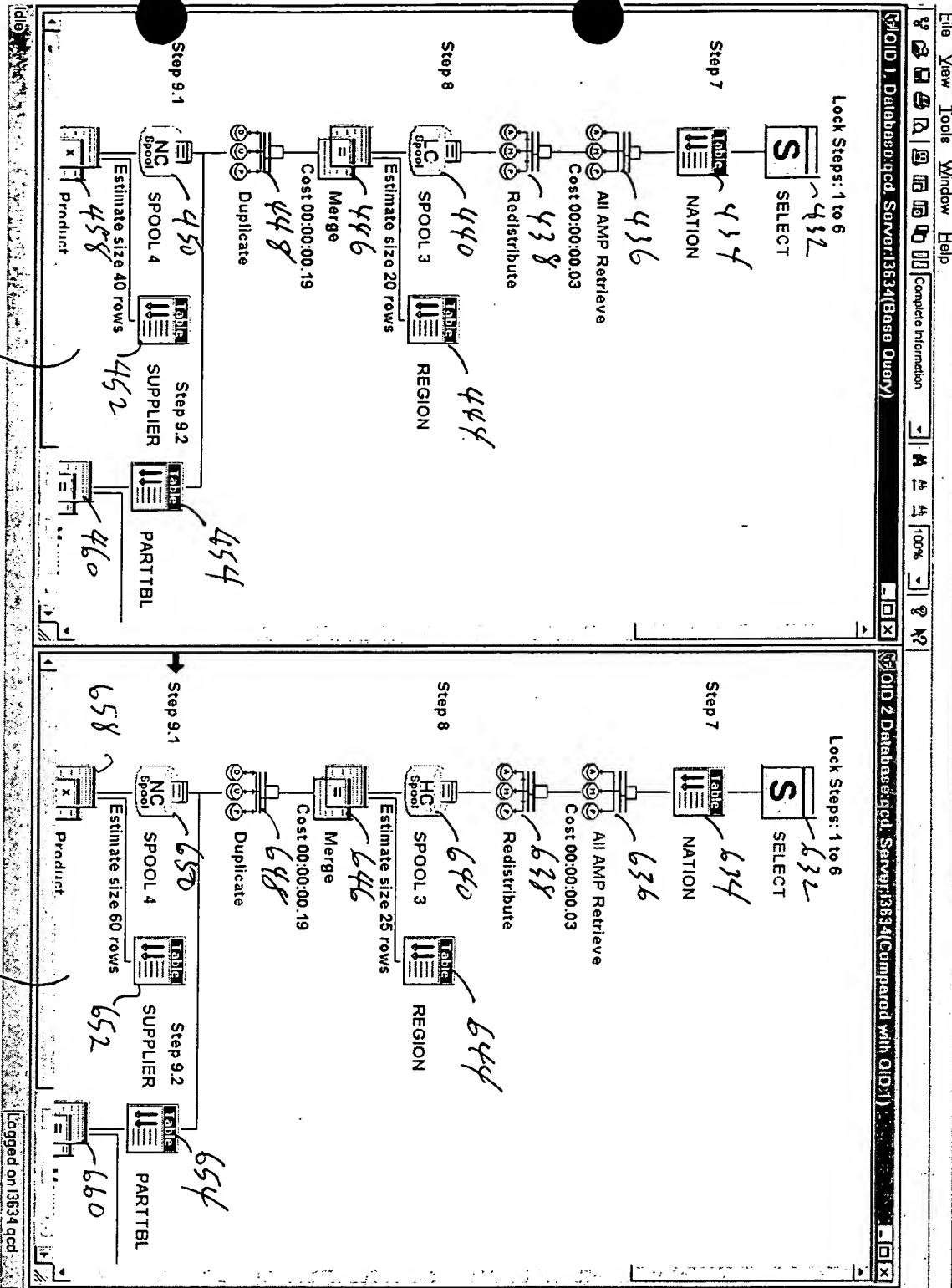
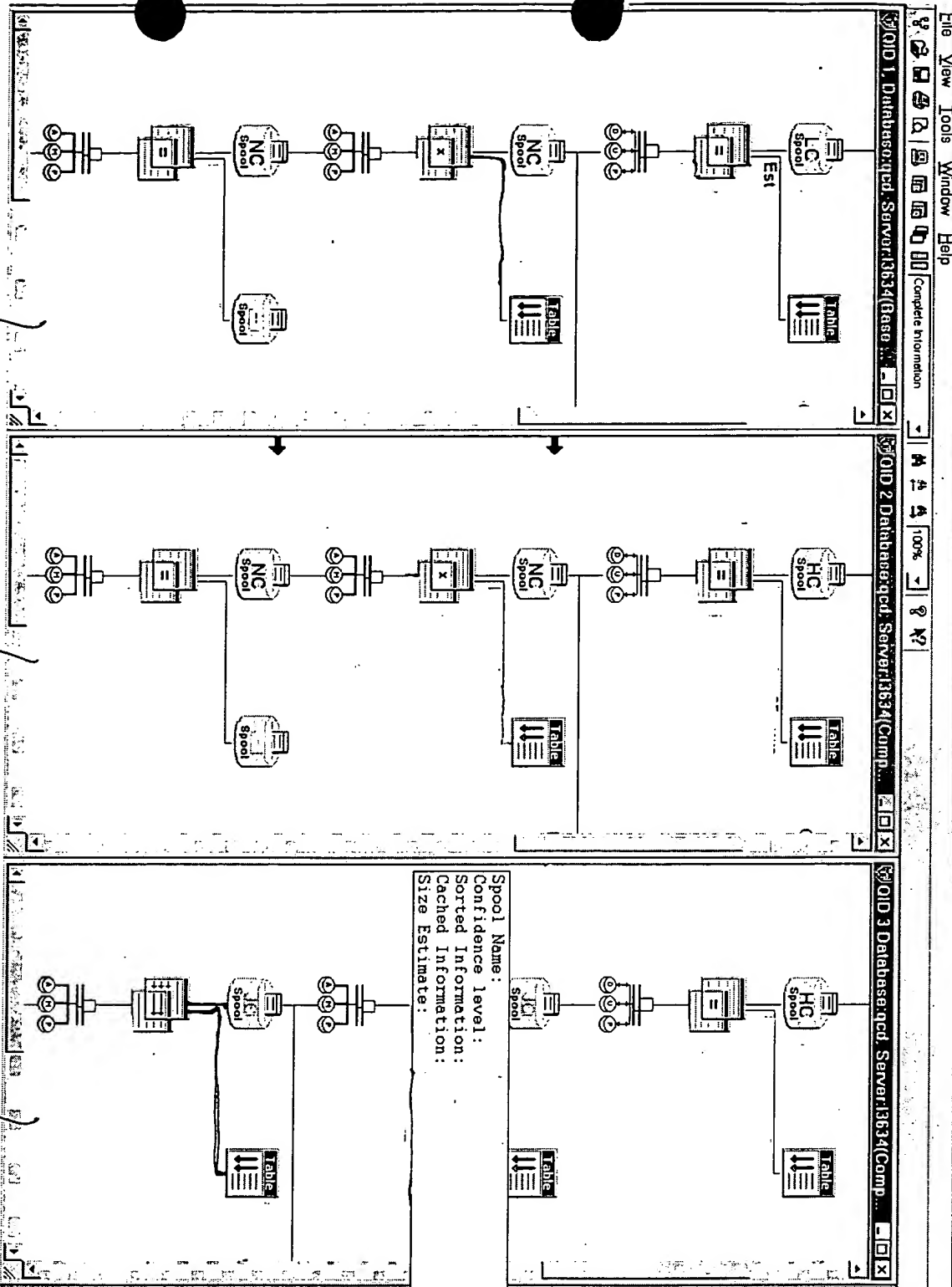


FIG. 18

09603975.063000



620

622

Flg. 19

624

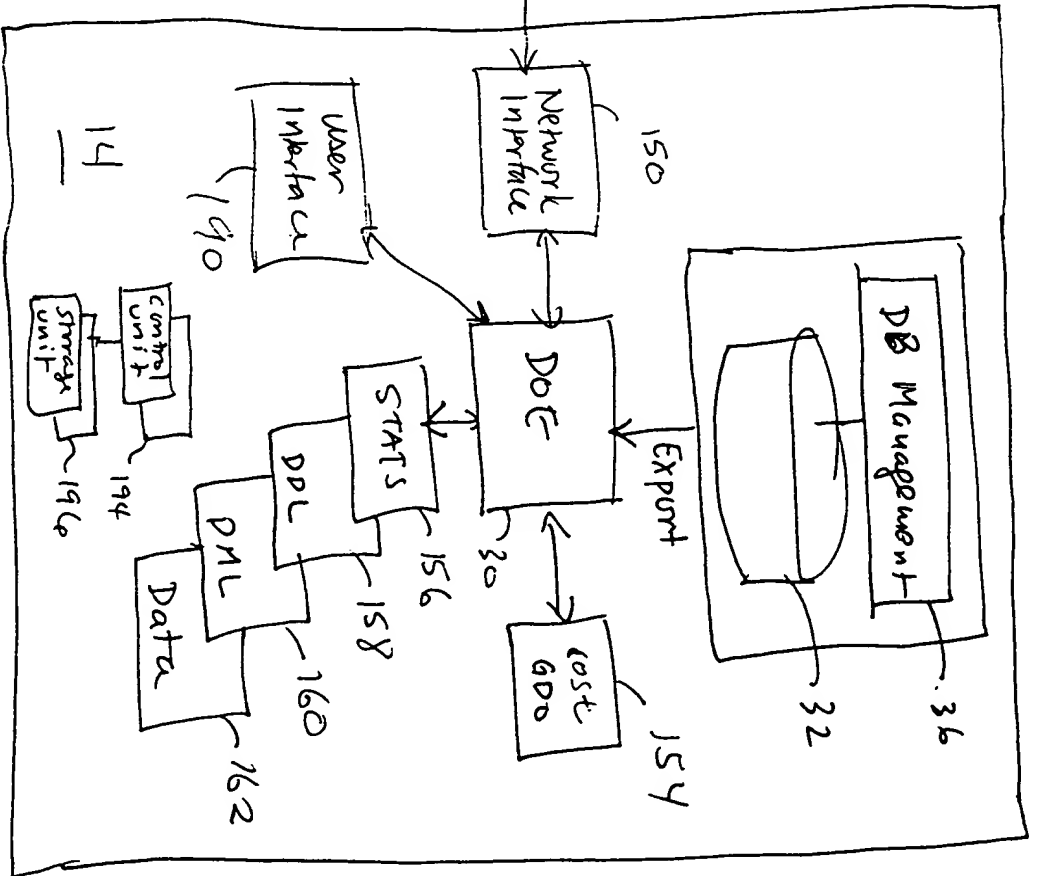
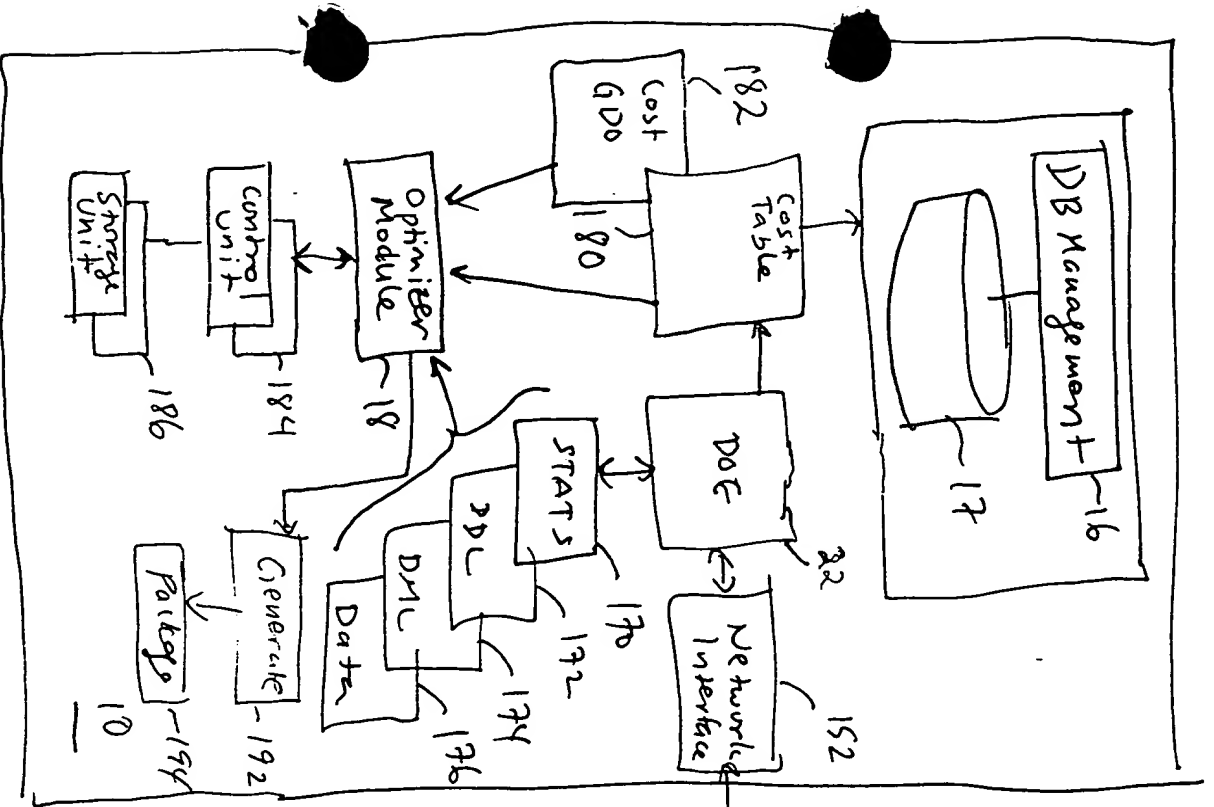


FIG. 20

09608976, 063000

Cost Table	
Row 1	
Row 2	

180

Map

Map

Cost GDD	154A
Optimization Parameters	202
Optimization Constraints	204

Cost GDD	154B
Optimization Parameters	202
Optimization Constraints	204

FIG 21
09608976.063000

Export Data From Teradata RDBMS



Dump options:

- ☐ ALL
- ☒ Statistics
- ☒ Cost Parameters
- ☒ QCD
- ☒ Table Definitions
- ☐ Random AMP sampling

202
204
206
208
210
212

Output filename:

File name:

Result

Browse:



Home



OK

Cancel

Help

200

F16. 22

214

09503976.063000